## United States Patent [19]

Rapp et al.

[11] Patent Number:

4,873,400

[45] Date of Patent:

Oct. 10, 1989

## [54] MANUALLY ACTIVATED POSITION INDICATOR

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[21] Appl. No.: 216,294

[22] Filed: Jul. 8, 1988

[30] Foreign Application Priority Data

Jul. 10, 1987 [DE] Fed. Rep. of Germany ...... 3722890

 [56] References Cited
U.S. PATENT DOCUMENTS

4,707,573 11/1987 Etherington et al. ...... 178/18

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[57] ABSTRACT

A manually activated position indicator with electrical output signals includes a plurality of adjacent electrodes (S, Al-, Al+, Bl-, Bl+, Ax-, Ax+, Bx-, Bx+,Ay-, Ay+, By-, By+), which are electrically insulated from one another and are covered on one side by an electrically insulating layer (3) the side of which opposite said electrodes is provided as a support surface for a finger (4) of the user of said position indicator wherein said electrodes form at least three groups, and all of the electrodes (S) of a first group are connected to a voltage source (5) that delivers an alternating voltage (Us). The electrodes of the other groups are connected to a signal evaluating circuit, and at least one electrode of said other groups is arranged adjacent to an electrode (S) of the first group.

13 Claims, 4 Drawing Sheets

